

What is claimed is:

1. A noise shaper for processing stereo signals comprising:  
an input means that inputs two-channel stereo signals;  
a means that converts the two-channel stereo signals into a serial time-division-multiplexed signal;  
a delta sigma modulation means that inputs the serial time-division-multiplexed signal; and  
a means that outputs to separate a noise-shaped output signal into right and left channel signals.

2. A noise shaper for processing stereo signals as claimed in Claim 1, wherein:

the delta sigma modulation means includes an integration means connected in a single stage or in a multi-stage of two or more stages, which applies a delta sigma modulation to an inputted signal;

the integration means includes: an adding means to which the serial signal is supplied, two storage means to which an output from the adding means is inputted in correspondence to the two channels, and a selection means that selects in time-sharing either of the outputs from the two storage means in correspondence to the two channels;

and the output of the selection means is inputted to the adding means.

3. A noise shaper for processing stereo signals as claimed in Claim 2, wherein the two storage means are a flip-flop for the L-channel that operates on the basis of an L-channel clock, and a flip-flop for the R-channel that operates on the basis of an R-channel clock having a different phase with the L-channel clock.